March 13, 2009

Mr. Gerardo Rios U.S. EPA, Region IX 75 Hawthorne Street San Francisco, CA 94105

SUBJECT:

Proposed De Minimis Significant Title V Revision for Southern California

Edison, Pebbly Beach Generating Station, ID# 4477

Dear Mr. Rios:

The South Coast Air Quality Management District (AQMD) has received and reviewed permit applications from Southern California Edison (SCE), Pebbly Beach Generating Station. These applications involve changing the NOx limit for 5 of the diesel generators at the site from individual limits on each unit to a facility-wide aggregate limit, as part of a settlement agreement being negotiated by AQMD and SCE.

The AQMD is required under Rule 3005 (e) to provide a copy of the proposed permit to the EPA Administrator for a 45-day review. As such, a copy of the proposed revision to the existing Title V permit is attached along with our engineering analysis for your review. We intend to issue the final permit at the end of EPA's 45-day review period, pending any comments we receive.

If you have any questions or wish to provide comments regarding this project, please contact Mr. Chris Perri at (909) 396-2696 / cperri@aqmd.gov.

Very truly yours,

Michael D. Mills, P.E

Senior Manager

General Commercial & Energy Team

michael A. mills

Engineering & Compliance

Enclosure

Title Page

Facility I.D.#:

Revision #: DRAFT Date: March 12, 2009

### **FACILITY PERMIT TO OPERATE**

SO CAL EDISON CO 1 PEBBLY BEACH RD AVALON, CA 90704

### NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env. EXECUTIVE OFFICER

Ву	٠.	
Mohsen Nazemi, P.E.		
Deputy Executive Officer		
Engineering & Compliance		

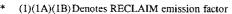
Section H Page: 1 Facility I.D.: 4477 Revision #: DRAFT Date: March 12, 2009

# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COM	MBUSTI	ON			
System 1 : POWER GENER	ATION				
INTERNAL COMBUSTION ENGINE, UNIT NO. 7, DIESEL FUEL, EMD, MODEL 16-567-C, WITH TURBOCHARGER, 1500 HP WITH A/N: 404268 Permit to Construct Issued: 08/05/03	DI	C54 C76	NOX: MAJOR SOURCE**	CO: 2000 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]; NOX: 7.5 lbs/net MWH DIESEL (5) [RULE 2009.1,5-11-2001]; PM: (9) [RULE 404,2-7-1986]  ROG: 300 PPMV DIESEL (5)	A195.8, D29.1, D29.2, D90.1, D425.1, E73.1, H23.3, I331.1, K40.2
				[RULE 1110.2, 2-1-2008]	
GENERATOR, 1000 KW			,		
SELECTIVE CATALYTIC REDUCTION, UNIT #7, JOHNSON MATTHEY, METAL MONOLITH VANADIA/TITANIA, 1000.5 CU.FT.; WIDTH: 4 FT; HEIGHT: 6 FT 6 IN; LENGTH: 7 FT 7 IN WITH A/N: 402942 Permit to Construct Issued: 08/05/03	C54	D1		NH3: 10 PPMV (5) [RULE 1303(a)(1)-BACT,5-10-1996]	A195.2, D12.3, D12.4, D12.5, E179.1, E179.2, E193.1
UREA INJECTION SYSTEM, AQUEOUS UREA INJECTION GRID #7					
TANK, DAY TANK #7, AQUEOUS UREA, 150 GALS; LENGTH: 3 FT; WIDTH: 3 FT					
CO OXIDATION CATALYST A/N: 402942 Permit to Construct Issued: 08/05/03	C76	D1			



(3) Denotes RECLAIM concentration limit

(5)(5A)(5B) Denotes command and control emission limit

(7) Denotes NSR applicability limit

See App B for Emission Limits

(2)(2A)(2B) Denotes RECLAIM emission rate

(4) Denotes BACT emission limit

(6) Denotes air toxic control rule limit

(8)(8A)(8B)Denotes 40 CFR limit(e.g. NSPS, NESHAPS,etc.)

(10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL CON	ABUSTI(	ON .			`
INTERNAL COMBUSTION ENGINE, UNIT NO. 8, DIESEL FUEL, EMD, MODEL 16-567-D4, TWO CYCLE, LEAN BURN, WITH TURBOCHARGER, 2150 HP WITH A/N: 405149 Permit to Construct Issued: 08/05/03	D2	C59 C77	NOX: MAJOR SOURCE**	CO: 2000 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]; NOX: 7.5 lbs/net MWH DIESEL (5) [RULE 2009.1,5-11-2001]; PM: (9) [RULE 404,2-7-1986]	A195.8, D29.1, D29.2, D90.1, D425.1, E73.1, H23.3, I331.1, K40.2
· · · · · · · · · · · · · · · · · · ·		·		ROG: 300 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]	
GENERATOR, 1500 KW			·		
SELECTIVE CATALYTIC REDUCTION, UNIT #8, JOHNSON MATTHEY, METAL MONOLITH VANADIA/TITANIA, 1000.5 CU.FT.; WIDTH: 4 FT; HEIGHT: 6 FT 6 IN; LENGTH: 7 FT 7 IN WITH A/N: 405151 Permit to Construct Issued: 08/05/03	C59	D2		NH3: 10 PPMV (5) [RULE 1303(a)(1)-BACT,5-10-1996]	A195.2, D12.3, D12.4, D12.5, E179.1, E179.2, E193.1
UREA INJECTION SYSTEM, AQUEOUS UREA INJECTION GRID #8					
TANK, DAY TANK #8, AQUEOUS UREA, 150 GALS; LENGTH: 3 FT; WIDTH: 3 FT					
CO OXIDATION CATALYST A/N: 405151 Permit to Construct Issued: 08/05/03	C77	D2			



(3) Denotes RECLAIM concentration limit.

(5)(5A)(5B) Denotes command and control emission limit

(7) Denotes NSR applicability limit

See App B for Emission Limits

(2)(2A)(2B) Denotes RECLAIM emission rate

(4) Denotes BACT emission limit

(6) Denotes air toxic control rule limit

(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)

(10) See Section J for NESHAP/MACT requirements

\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

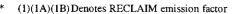
Section H Facility I.D.: Revision #: Date: March 12, 2009

### **FACILITY PERMIT TO OPERATE** SO CAL EDISON CO

### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COM	/BUSTI	ON			
INTERNAL COMBUSTION ENGINE, UNIT NO. 10, DIESEL FUEL, EMD, MODEL 16-645-E1, WITH TURBOCHARGER, 1575 HP WITH A/N: 404270 Permit to Construct Issued: 08/05/03	D3	C55 C78	NOX: MAJOR SOURCE**	CO: 2000 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]; NOX: 7.5 lbs/net MWH DIESEL (5) [RULE 2009.1,5-11-2001]; PM: (9) [RULE 404,2-7-1986]  ROG: 305 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]	A195.8, D29.1, D29.2, D90.1, D425.1, E73.1, H23.3, I331.1, K40.2
GENERATOR, 1125 KW			. /	,	
SELECTIVE CATALYTIC REDUCTION, UNIT #10, JOHNSON MATTHEY, METAL MONOLITH VANADIA/TITANIA, 1000.5 CU.FT.; WIDTH: 4 FT; HEIGHT: 6 FT 6 IN; LENGTH: 7 FT 7 IN WITH A/N: 403322 Permit to Construct Issued: 08/05/03	C55	D3		NH3: 10 PPMV (5B) [RULE 1303(a)(1)-BACT,5-10-1996]	A195.2, D12.3, D12.4, D12.5, E179.1, E179.2, E193.1
TANK, DAY TANK #10, AQUEOUS UREA, 150 GALS; LENGTH: 3 FT; WIDTH: 3 FT					
UREA INJECTION SYSTEM, AQUEOUS UREA INJECTION GRID #10					
CO OXIDATION CATALYST A/N: 403322 Permit to Construct Issued: 08/05/03	C78	D3		·	· · · · · · · · · · · · · · · · · · ·



Denotes RECLAIM concentration limit

(5)(5A)(5B) Denotes command and control emission limit

(7) Denotes NSR applicability limit

See App B for Emission Limits

(2)(2A)(2B) Denotes RECLAIM emission rate

(4) Denotes BACT emission limit

(6) Denotes air toxic control rule limit

(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)

(10)See Section J for NESHAP/MACT requirements

Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

Section H Facility I.D.: Revision #: Date: March 12, 2009

### **FACILITY PERMIT TO OPERATE** SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: INTERNAL COM	<b>1BUSTI</b>	ON			
INTERNAL COMBUSTION ENGINE, UNIT NO. 12, DIESEL FUEL, EMD, MODEL 12-645-E4, WITH TURBOCHARGER, 2200 HP WITH A/N: 404271 Permit to Construct Issued: 08/05/03	D5	C56 C79	NOX: MAJOR SOURCE**	CO: 2000 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]; NOX: 7.5 lbs/net MWH DIESEL (5) [RULE 2009.1,5-11-2001]; PM: (9) [RULE 404,2-7-1986]	A195.8, D29.1, D29.2, D90.1, D425.1, E73.1, H23.3, I331.1, K40.2
				ROG: 301 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]	
GENERATOR, 1500 KW					
SELECTIVE CATALYTIC REDUCTION, UNIT #12, JOHNSON MATTHEY, METAL MONOLITH VANADIA/TITANIA, 1000.5 CU.FT.; WIDTH: 4 FT; HEIGHT: 6 FT 6 IN; LENGTH: 7 FT 7 IN WITH	C56	D5	,	NH3: 10 PPMV (5) [RULE 1303(a)(1)-BACT,5-10-1996]	A195.2, D12.3, D12.4, D12.5, E179.1, E179.2, E193.1
A/N: 402940 Permit to Construct Issued: 08/05/03				·	·
UREA INJECTION SYSTEM, AQUEOUS UREA INJECTION GRID #12					
TANK, DAY TANK #12, AQUEOUS UREA, 150 GALS; LENGTH: 3 FT; WIDTH: 3 FT					
CO OXIDATION CATALYST A/N: 402940 Permit to Construct Issued: 08/05/03	C79	D5			, .



Denotes RECLAIM concentration limit

(5)(5A)(5B) Denotes command and control emission limit

(7) Denotes NSR applicability limit

See App B for Emission Limits

(2)(2A)(2B) Denotes RECLAIM emission rate

(4) Denotes BACT emission limit

(6) Denotes air toxic control rule limit

(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)

See Section J for NESHAP/MACT requirements

Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

(10)

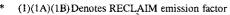
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# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COM	<b>ABUSTI</b>	ON			•
INTERNAL COMBUSTION ENGINE, UNIT NO. 14, DIESEL FUEL, GENERAL MOTORS, MODEL S16-645- E1, 16 CYLINDERS, WITH TURBOCHARGER, 1950 HP WITH A/N: 404272 Permit to Construct Issued: 08/05/03	D6	C57 C80	NOX: MAJOR SOURCE**	CO: 2000 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]; NOX: 7.5 lbs/net MWH DIESEL (5) [RULE 2009.1,5-11-2001]; PM: (9) [RULE 404,2-7-1986]  ROG: 294 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]	A195.8, D29.1, D29.2, D90.1, D425.1, E73.1, H23.3, I331.1, K40.2
GENERATOR, 1400 KW				( )	
SELECTIVE CATALYTIC REDUCTION, UNIT #14, JOHNSON MATTHEY, METAL MONOLITH VANADIA/TITANIA, 1000.5 CU.FT.; WIDTH: 4 FT; HEIGHT: 6 FT 6 IN; LENGTH: 7 FT 7 IN WITH A/N: 403321 Permit to Construct Issued: 08/05/03	C57	D6		NH3: 10 PPMV (4) [RULE 1303(a)(1)-BACT,5-10-1996]	A195.2, D12.3, D12.4, D12.5, E179.1, E179.2, E193.1
UREA INJECTION SYSTEM, AQUEOUS UREA INJECTION GRID #14					
TANK, DAY TANK #14, AQUEOUS UREA, 150 GALS; LENGTH: 3 FT; WIDTH: 3 FT					
CO OXIDATION CATALYST A/N: 403321 Permit to Construct Issued: 08/05/03	C80	D6			



(3) Denotes RECLAIM concentration limit

(5)(5A)(5B) Denotes command and control emission limit

(7) Denotes NSR applicability limit

See App B for Emission Limits

(2)(2A)(2B) Denotes RECLAIM emission rate

(4) Denotes BACT emission limit

(6) Denotes air toxic control rule limit

(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)

(10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL CON	BUSTI	ON			;
INTERNAL COMBUSTION ENGINE, LEAN BURN, NON-EMERGENCY, UNIT NO. 15, DIESEL FUEL, EMD, MODEL 16-710G4B, TWO CYCLE, WITH AFTERCOOLER, TURBOCHARGER, 3900 HP WITH A/N: 405148 Permit to Construct Issued: 08/05/03	D42	C58	NOX: MAJOR SOURCE**	CO: 2000 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]; NOX: 51 PPMV DIESEL (4) [RULE 2005,10-15-1993; RULE 2005,4-9- 1999]  NOX: 2.13 lbs/net MWH	A63.1, A195.7, D29.1, D29.2, D323.2, D425.1, E51.1, E71.2, E73.1, H23.3, I331.1, K40.2
GENERATOR 2800 VW				DIESEL (5) [RULE 2009.1,5-11-2001]; PM: (9) [RULE 404,2-7-1986]; ROG: 250 PPMV DIESEL (5) [RULE 1110.2,2-1-2008]	
GENERATOR, 2800 KW		,			
SELECTIVE CATALYTIC REDUCTION, UNIT #15, JOHNSON MATTHEY, METAL MONOLITH VANADIA/TITANIA, 1000.5 CU.FT.;	C58	D42		NH3: 10 PPMV (4) [RULE 1303(a)(1)-BACT,5-10-1996]	A195.2, D12.3, D12.4, D12.5, E179.1, E179.2, E193.1
WIDTH: 4 FT; HEIGHT: 6 FT 6 IN; LENGTH: 8 FT 9 IN WITH A/N: 405147 Permit to Construct Issued: 08/05/03	,	,			
UREA INJECTION SYSTEM, AQUEOUS UREA INJECTION GRID #15					•

(1)(1A)(1B) Denotes RECLAIM emission factor

(3) Denotes RECLAIM concentration limit

(5)(5A)(5B) Denotes command and control emission limit

(7) Denotes NSR applicability limit

· See App B for Emission Limits

(2)(2A)(2B) Denotes RECLAIM emission rate

(4) Denotes BACT emission limit.

(6) Denotes air toxic control rule limit

(8)(8A)(8B)Denotes 40 CFR limit(e.g. NSPS, NESHAPS,etc.)

(10) See Section J for NESHAP/MACT requirements

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : INTERNAL COM	<b>ABUSTI</b>	ON			
TANK, DAY TANK #15, AQUEOUS UREA, 150 GALS; LENGTH: 3 FT; WIDTH: 3 FT	,				
Process 3 : ORGANIC CHE	MICAL :	STORAGE			
STORAGE TANK, FIXED ROOF, NO. 1, 32.5 PERCENT AQUEOUS UREA, 10000 GALS; DIAMETER: 13 FT 6 IN; HEIGHT: 12 FT A/N: 403321 Permit to Construct Issued: 08/05/03	D72				
STORAGE TANK, FIXED ROOF, NO. 2, 32.5 PERCENT AQUEOUS UREA, 10000 GALS; DIAMETER: 13 FT 6 IN; HEIGHT: 12 FT A/N: 403321 Permit to Construct Issued: 08/05/03	D73				

 11/14/14/1	1R) Deno	tec DEC	ግ ልተእ	A emicci	on factor

(3) Denotes RECLAIM concentration limit

(5)(5A)(5B) Denotes command and control emission limit

(7) Denotes NSR applicability limit

See App B for Emission Limits

(2)(2A)(2B) Denotes RECLAIM emission rate

(4) Denotes BACT emission limit

(6) Denotes air toxic control rule limit

(8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)

(10) See Section J for NESHAP/MACT requirements

Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

**SECTION H: DEVICE ID INDEX** 

The following sub-section provides an index to the devices that make up the facility description sorted by device ID.

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# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

### **SECTION H: DEVICE ID INDEX**

	Device Index For Section H					
Device ID	Section H Page No.	Process	System			
D1	1	1	1			
D2	2	1	1			
D3	3	· 1	1			
D5	4	1 .	. 1			
D6	5	. 1	1			
D42	6	1	1			
C54	1	1	1			
C55	3	1	1			
. C56	4	1	' 1			
C57	5	\ 1	1			
C58	6	1	1			
· C59	2	1	1			
D72	7	3	0			
D73	7	3	0			
C76	1	1	1			
C77	2	1	1			
C78	3	1	1			
C79	4	1	· 1			
C80	5	1	1			

4477 DRAFT

Date:

March 12, 2009

# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

#### **FACILITY CONDITIONS**

- F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:
  - (a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or
  - (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 9-11-1998]

F14.1 The operator shall not use fuel oil containing sulfur compounds in excess of 0.05 percent by weight.

[RULE 431.2, 5-4-1990; RULE 431.2, 9-15-2000]

F14.2 The operator shall not purchase fuel oil containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

This condition shall become effective on or after June 1, 2004.

[RULE 431.2, 9-15-2000]

#### **DEVICE CONDITIONS**

#### A. Emission Limits

Date:

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DRAFI March 12, 2009

### FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A63.1 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT		
ROG	Less than or equal to 11.2 LBS PER DAY		
SOX	Less than or equal to 32.9 LBS PER DAY	•	
PM10	Less than or equal to 44.4 LBS PER DAY	*	
CO	Less than or equal to 206.1 LBS PER DAY		

#### [RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition: D42]

A195.2 The 10 PPMV NH3 emission limit(s) is averaged over 60 minutes at 15 percent O2 dry. The operator shall calculate and continuously record the NH3 slip concentration using the following equations.

NH3(ppmv)=[a-b\*c/1E6]\*1E6/b, a=NH3 (urea) injection rate (lb/hr)/17(lb/lb-mole), b=dry exhaust gas flow rate(lb/hr)/29(lb/lb-mole), and c=change in measured NOx across the SCR, ppmv at 15 percent O2).

The operator shall install and maintain a NOx analyzer, or other method as approved by the AQMD to measure the SCR inlet NOx ppm accurate to within  $\pm$  5 percent calibrated at least once every 12 months.

The operator shall use the method described above or another alternative method approved by the Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information determination without corroborative data using an approved reference test method for the determination of ammonia.

#### [RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C54, C55, C56, C57, C58, C59]

Date:

March 12, 2009

### **FACILITY PERMIT TO OPERATE** SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A195.7 The 2.13 LBS/MW-HR NOX emission limit(s) is averaged over 1 year.

- (b) For each quarter starting from the fourth quarter of compliance year 2001, report the quarterly NOx emissions and the energy produced in megawatts-hour for the quarter from this device. The report shall be filed along with the Quarterly Certificate of Emission Report (QCER) as required by Rule 2004.
- 1. To demonstrate compliance with the Nox emission rate for Device D42, the facility permit holder shall comply with the following:.
- (a) Determine the NOx emissions from the device pursuant to Rule 2012 including any required data substitution.
- 2. The SCR control equipment shall be capable of achieving a NOx reduction of at least 70%.

[RULE 2004, 5-11-2001; RULE 2009.1, 5-11-2001]

[Devices subject to this condition: D42]

- A195.8 The 7.5 LBS/MW-HR NOX emission limit(s) is averaged over 1 calendar year. The limit is calculated based on the total mass NOx emitted from Units 7, 8, 10, 12, 14, and 15 combined.
  - 1. To demonstrate compliance with the Nox emission rate, the facility permit holder shall comply with the following:
    - a) Determine the mass NOx emissions from the all engines pursuant to Rule 2012 including any required data substitution
    - b) For each quarter, report the quarterly NOx emissions and the energy produced in megawatts-hour for the quarter from all engines. The report shall be filed along with the Quarterly Certificate of Emission Report (QCER) as required by Rule 2004

[RULE 2004, 5-11-2001; RULE 2004, 4-6-2007; RULE 2009.1, 5-11-2001]

[Devices subject to this condition: D1, D2, D3, D5, D6]

#### **D.** Monitoring/Testing Requirements

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# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the engine exaust at the inlet to the SCR reactor.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

#### [RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C54, C55, C56, C57, C58, C59]

D12.4 The operator shall install and maintain a(n) continuous monitoring system to accurately indicate the flow rate of the urea injection system.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

#### [RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C54, C55, C56, C57, C58, C59]

D12.5 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the the SCR catalyst bed in inches water column.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

#### [RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C54, C55, C56, C57, C58, C59]

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### FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D29.1 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NOX emissions	District method 100.1	1 hour	Outlet of the SCR serving this equipment
CO emissions	District method 100.1	1 hour	Outlet of the SCR serving this equipment
SOX emissions	District method 6.1	1 hour	Outlet of the SCR serving this equipment
ROG emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
PM emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

The District shall be notified of the date and time of the test at least 10 days prior to the test

The test(s) shall be conducted after approval of the test protocol, but no later than 180 days after initial startup of the internal combustion engine(s) with SCR

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the test shall measure the fuel flow rate (CFH), the flue gas flow rate, and the generator output (MW)

The test shall be conducted when the equipment is operating at loads of 100, 75, and 50 percent of maximum load

The test shall be conducted in accordance with a AQMD approved source test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the ICE(s) during the test, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of R304, and a description of all sampling and analytical procedures.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 2005, 4-9-1999; RULE 2005, 4-20-2001]

[Devices subject to this condition: D1, D2, D3, D5, D6, D42]

Section H Facility I.D.:

Revision #:

Date:

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### FACILITY PERMIT TO OPERATE SO CAL EDÍSON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH3 emissions	District method 207.1 and 5.3 or EPA method 17	1 hour	Outlet of the SCR serving this equipment

The test shall be conducted at least quarterly during the first 12 months of operation of the SCR, and at least annually thereafter.

The test shall be conducted to determine the NH3 emissions at the outlet using the specified method measured over a 60 minute averaging time period. The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District method 100.1.

The test shall be conducted when the equipment is operating at 80 percent load or greater.

The test shall be conducted and the results submitted to the District within 45 days after the test date.

#### [RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: D1, D2, D3, D5, D6, D42]

The operator shall monitor the power output of the engine generator according to the following specifications:

The operator shall install and maintain a device to accurately indicate the net power output of the engine generator. The data will be used to calculated the emissions in lbs/MWh

The measuring device or gauge shall be accurate within plus or minus 5 percent. It shall be calibrated once every 12 months.

The operator shall also install and maintain a device to continuously record the parameter being monitored.

[RULE 2004, 5-11-2001; RULE 2004, 4-6-2007; RULE 2009.1, 5-11-2001]

[Devices subject to this condition: D1, D2, D3, D5, D6]

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## FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D323.2 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a quarterly basis, at least, unless the equipment did not operate during the entire quarterly period. The routine quarterly inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

#### [RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D42]

D425.1 The operator shall have the existing NOx CEMS monitoring this device reevaluated by the District by submitting a CEMS application. If the CEMS is not recertified within 90 days of the start-up of this device, the facility permit holder shall calculate and report NOx emissions in accordance with Rule 2012, Appendix A, Chapter 2, Paragraph (B)(17)-Recertification Requirements.

[RULE 2012, 3-16-2001; **RULE 2012, 12-5-2003**]

[Devices subject to this condition: D1, D2, D3, D5, D6, D42]

#### E. Equipment Operation/Construction Requirements

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# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

E51.1 The following condition number(s) shall not apply if all of the requirements stated below are met:

Condition number 63:1

Requirement number 1: startup, not to exceed 1 hour

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition: D42]

E71.2 The operator shall not operate this equipment if engine #11 is not shutdown, and the Permit to Operate surrendered to the District..

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition: D42]

E73.1 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use urea injection during start ups when the exhaust temperature at the inlet of the SCR reactor is less than 550 Deg F, not to exceed 1 hour:

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 402, 5-7-1976]

[Devices subject to this condition: D1, D2, D3, D5, D6, D42]

E179.1 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every hour and shall be calculated upon the average of the continuous monitoring for that hour.

Condition Number D 12-3

Condition Number D 12-4

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C54, C55, C56, C57, C58, C59]

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### **FACILITY PERMIT TO OPERATE** SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

E179.2 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every month and shall be calculated based upon the average of the continuous monitoring for that month.

Condition Number D 12-5

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C54, C55, C56, C57, C58, C59]

E193.1 The operator shall construct, operate, and maintain this equipment according to the following specifications:

In accordance with all mitigation measures, as well as all design and operational representations, stipulated in the CEQA document that was prepared for this project by the South Coast AQMD (SCH No. 2003031050)

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition: C54, C55, C56, C57, C58, C59]

#### H. Applicable Rules

This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
PM	District Rule	1470

These engines operating with SCR, are exempt from the PM standards of this rule

[RULE 1470, 6-1-2007]

[Devices subject to this condition: D1, D2, D3, D5, D6, D42]

#### I. Administrative

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# FACILITY PERMIT TO OPERATE SO CAL EDISON CO

#### SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

I331.1 The conditions and requirements for this device in Section H shall take effect, and shall supersede those in Section D, when the modifications authorized in Section H are completed. The operator shall notify the AQMD when the modifications are completed.

[RULE 202, 5-7-1976]

[Devices subject to this condition: D1, D2, D3, D5, D6, D42]

#### K. Record Keeping/Reporting

K40.2 The operator shall provide to the District a source test report in accordance with the following specifications:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of mass rate (lbs/hr). In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include engine fuel, exhaust gas rate, and engine and generator output under which the test was conducted.

In addition, NOx emission data shall be expressed in terms of lbs/MW-hr

Emission data shall be expressed in terms of concentration (ppmv), corrected to 15 percent oxygen, dry basis.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 2005, 4-9-1999; RULE 2005, 4-20-2001]

[Devices subject to this condition: D1, D2, D3, D5, D6, D42]